



# UNITED STATES PATENT AND TRADEMARK OFFICE

*cen*

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/047,556

10/23/2001

Martin Klein

H 2182

4171

1218

7590

12/19/2006

CASELLA & HESPOS  
274 MADISON AVENUE  
NEW YORK, NY 10016

EXAMINER

LEE, SHUN K

ART UNIT

PAPER NUMBER

2884

MAIL DATE

DELIVERY MODE

12/19/2006

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/047,556

Applicant(s)

KLEIN ET AL.

Examiner

Shun Lee

Art Unit

2884

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 27 November 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 4 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☒ The Notice of Appeal was filed on 27 November 2006. A brief in compliance with 37 CFR 41.37, must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 1-3, 5, 6, 8-10, 13-15, 17 and 18.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

  
**CONSTANTINE HANNAHEER**  
PRIMARY EXAMINER

Continuation of 11. does NOT place the application in condition for allowance because: applicant argues that arranging an additional converter layer on the GEM foil is not suggested anywhere in the cited prior art since converter layers are already arranged between the GEMs and a version of an integrated converter layer is already disclosed in the embodiment depicted in Figs. 7A and 9. Examiner respectfully disagrees. First as a preliminary matter, it should be noted that the 21 July 2006 office action indicated (pg. 7-8) that the declaration under 37 CFR 1.132 filed 8 May 2006 is insufficient to overcome the rejection of amended claims based upon Danielsson et al. Further, Danielsson et al. state (column 14, lines 1-7) that "11. The detector as claimed in claim 1, wherein said converter and said amplifier are integrated in one unit by the provision of a composite dipole layered structure comprising a sheet of an insulating material which is metal clad on both sides, wherein at least one of said metal claddings is substantially thicker than the sheet of insulating material, said thicker metal cladding acting as a converter" and (column 1, lines 53-58) that "In imaging devices for higher X-ray energies, a special converter is added in front of the detector to increase the probability for electromagnetic interaction of the X-rays. This is needed to increase the efficiency of the devices since higher energy X-rays are much more penetrating and would otherwise pass the detector undetected. The converter is usually made as a thin plate of some heavy metal like copper or iron, but molybdenum, chromium or tungsten are equally suitable. In principle any material could be used, but the efficiency of the device will increase with increasing atomic number". Thus Danielsson et al. suggest a composite dipole layered structure (e.g., GEM) having an integrated converter layer (e.g., one of the metal cladding thickened to act as a converter) and further that the converter layer should be selected to obtain a desired efficiency for higher X-ray energies. Gleason teaches (column 1, lines 9-36) that boron-10 is a widely used converter layer for detecting neutrons. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to arrange boron-10 on the copper conductive layer in the apparatus of Danielsson et al., in order to detect neutrons.